

**Notice of Allowability**

Application No.

10/511,823

Applicant(s)

OI ET AL.

Examiner

Art Unit

Chukwuma O. Nwaonicha

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ The drawings filed on \_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_

*[Signature]*  
JOHANN RICHTER  
SUPERVISORY PATENT EXAMINER  
GROUP 1200

### **DETAILED ACTION**

Claims 1-19 are pending in the application.

#### ***Allowed Claims***

Claims 1-19 are allowable over the prior art of record.

#### ***Reason For Allowance***

The following is an examiner's statement of reasons for allowance: Applicants' claim process for producing dihydroxydiphenylsulfone comprising the step of dissolving or suspending crude dihydroxydiphenylsulfone containing trihydroxytriphenylsulfone in an aqueous solvent; wherein all the variables are as defined in the claims was neither found to be obvious nor anticipated by the prior art of record.

The closest prior art is Pabst et al., {WO 2001079163, which is US 6,700,020}. Pabst et al. teach a process for producing 4,4'-dihydroxydiphenylsulfone comprising reacting phenol with sulfonating agent, suspending the resulting crude product in water heated to at least 40°C, which is free of inert organic solvents, which can contain residual amounts of unreacted phenol, and filtering off the product. The resulting waste stream containing the educt and/or product is return to the production process. See US 6,700,020, column 1, lines 5-27. Pabst et al. process differs from applicants claimed process in that applicants claimed process involves the production of dihydroxydiphenylsulfone from a mixture of dihydroxydiphenylsulfone and trihydroxytriphenylsulfone whereas Pabst et al. process involves the production of 4,4'-dihydroxydiphenylsulfone from a reaction mixture of a phenol and a sulfonating agent.

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These differences are not readily apparent and would not have been suggested to one of ordinary skill.

A further search of the prior art failed to uncover any reference that teaches or motivates one of ordinary skill to disclose a process for producing dihydroxydiphenylsulfone from a mixture of dihydroxydiphenylsulfone and trihydroxytriphenylsulfone in an aqueous solvent as claimed by applicants.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chukwuma O. Nwaonicha, Ph.D.  
Patent Examiner  
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